Exhibit 1

Clean copy of pending claims pursuant to 37 CFR 1.121(c)(3)

3. (Thrice Amended) A N¹-monosubstituted polyamine analogue or derivative represented by the formula

R-CO-NH-(CH₂)₃-NH-(CH₂)₄-NH-(CH₂)₃-NH₂

wherein R is selected from a D or L amino acid; D or L ornithine, an alicyclic, a single or multi-ring aromatic; aliphatic-substituted single or multi-ring aromatic; and a substituted or unsubstituted, single or multi-ring heterocyclic, and

wherein said analogue or derivative does not have a formula represented by ID 1022, 1043, or 1202.

- 32. An analogue or derivative according to claim 3 wherein R is alicyclic or aromatic.
- 33.(amended) An analogue or derivative according to claim 3 wherein R is a D or L amino acid or D or L ornithine.
- 34.(amended) A composition comprising a polyamine analogue or derivative according to claim 3, 32 or 33 and a pharmaceutically acceptable excipient.
- 35. A composition comprising a polyamine analogue or derivative according to claim 3, a pharmaceutically acceptable excipient, and an inhibitor of polyamine synthesis.
- 36. A composition according to claim 35 herein said inhibitor of polyamine synthesis is difluoromethylornithine (DFMO).
- 37. A method for treating a disease or a condition in a subject associated with undesired cell proliferation and/or which is treatable by inhibition of polyamine transport,

comprising administering to said subject a polyamine analogue or derivative according to claim 3.

- 38.(amended) A method according to claim 37 wherein said undesired cell proliferation is associated with proliferation of cells of the immune system, cells of the vascular neontima, tumor cells or with undesired angiogenesis.
- 39. A method according to claim 37 wherein said disease or condition is cancer or post-angioplasty injury.
- 40. A method according to claim 37 further comprising administration of an inhibitor of polyamine synthesis.
- 41. A method according to claim 40 wherein said inhibitor of polyamine synthesis is difluoromethylornithine (DFMO).
 - 42. A composition according to claim 35 or 36 in solid form.
 - 43. A composition according to claim 35 or 36 in liquid form.
- 44. A method according to any one of claims 37-41 wherein said administering is performed orally, parenterally, topically, transdermally, intravaginally, intranasally, intrabronchially, intracranially, intraocularly, intraaurally, or rectally, or by injection.
- 45. A method according to claim 44 wherein said administering by injection is intravenous, subcutaneous, intramuscular, intracranial, or intraperitoneal.--

- 46.(amended) An analogue or derivative according to claim 3 wherein said analogue or derivative is represented by the formula ID 1158.
- 47. A composition comprising a polyamine analogue or derivative according to claim 46 and a pharmaceutically acceptable excipient.
- 48. A method for treating a disease or a condition in a subject comprising administering to said subject a polyamine analogue or derivative according to claim 46.
- 49. (New) The analogue or derivative of claim 3, wherein said substituted or unsubstituted heterocyclic is a pyrrolidine or a substituted pyrrolidine.
- 50. (New) The analogue or derivative of claim 49, wherein said substituted pyrrolidine is an N-substituted pyrrolidine.
- 51. (New) The analogue or derivative of claim 50 represented by the formula ID 1158.
- 52. (New) The analogue or derivative of claim 3 represented by the formula ID 1224.
- 53. (New) A method according to claim 37 wherein said condition is associated with cancer.



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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

RECEIVED

In the application of:

Nicolaas M.I. VERMEULIN et al.

Serial No.:

09/713,512

Filing Date: November 14, 2000

NOVEL POLYAMINE ANALOGUES

AS THERAPEUTIC AND DIAGNOSTIC

AGENTS

Examiner: P. O'Sullivan

JUL 0 9 2002

Group Art Unit: 1621

TECH CENTER 1600/2900



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DECLARATION OF REITHA WEEKS UNDER 37 C.F.R. § 1.132

Assistant Commissioner for Patents Washington, D.C. 20231

Dear Sir:

I, Reitha Weeks, declare as follows:

- 1. I have a Ph.D. in Genetics from the University of Washington (1987), completed post doctoral work at Seattle Biomedical Research Institute and Bristol Myers Squibb (Seattle) in the immunology department. I was a senior scientist at Cell Therapeutics, Inc., Seattle, in the molecular biology department before joining Oridigm Corp. (now MediQuest Therapeutics, Inc.) in 1996. I am currently Director of Biological Sciences at MediQuest Therapeutics, Inc., where I coordinate and review scientific projects and manage animal studies.
- 2. I am familiar with the contents of the above identified U.S. Patent Application 09/713,512 and the Office Action mailed March 26, 2002.

sd-98114

- 3. I have reviewed the published PCT application by Cherksey et al. (WO 91/00853) and the disclosure concerning lysylspermine, identified as compound "CC" on page 19 therein. The stereochemistry of the lysyl moiety in the lysylspermine compound is not disclosed.
- 4. I have conducted and/or supervised experiments on tissue concentrations of the L- and D-forms (based upon the stereochemistry of the lysyl moiety) of lysylspermine. Of the two forms, only the D- form is currently within the scope of the pending claims.
- 5. In those experiments, the L- and D- forms of lysylspermine at a concentration of 0.5 M were delivered via s.c. pump at a rate of 0.5 μl/hr to nude mice. The daily delivered concentration in the mice was about 150 mg/kg/day and was continued for 13 days, during which time the three mice receiving the L- form of lysylspermine and the four mice receiving the D- form of lysylspermine remained alive. After 13 days, the levels of the L- and D- forms of lysylspermine in liver, kidney, heart and brain tissues were determined in all treated mice.
- 6. The results, expressed as an average (nmol lysylspermine per gram of tissue) with standard deviation, are shown in the following table.

lysylspermine	liver (nmol/g)	kidney (nmol/g)	heart (nmol/g)	brain (nmol/g)
L- form	17.2 ± 0.7	180 ± 17	2.9 ± 0.8	0.6 ± 0.4
D- form	187 ± 28	625 ± 149	11 ± 3	1.2 ± 0.2

- 7. As shown by the above data, the concentrations of the L- and D-forms of lysylspermine in tissues not protected by the blood-brain barrier are significantly different after 13 days. An increased concentration of the D- form of lysylspermine, in comparison to the L- form, in liver, kidney and heart tissues is an unexpected observation, especially because the compounds only differ in stereochemistry at a single position.
- 8. The observed higher tissue concentration of the D- form of lysylspermine has significance for the use of the compound in the inhibition of polyamine transport and/or the inhibition of

cell proliferation. Higher tissue concentrations generally permit the use of lower amounts of a compound to achieve the same biological effect in a tissue.

9. I declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further, that these statements are made with the knowledge that willful, false statements and the like so made are punishable by fine or imprisonment or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

Executed at <u>2:29 pm</u> on June <u>24</u>, 2002.

Reitha S. Weeks